Contents Volume 82, 1990

Introduction to Earth Processes and Global Changes
K.J. Hsü and W.U. Henken-Mellies (Zürich, Switzerland) 1

I. Contributions from the oceanic record to the study of global change on three time scales—Report of Working Group 1, Interlaken Workshop for Past Global Changes
N.J. Shackleton, T.H. van Andel, E.A. Boyle, E. Jansen, L. Labeyrie, M. Leinen, J. McKenzie, L. Mayer and E. Sundquist (Cambridge, U.K.) 5

II. Global change and the terrestrial record—Report of Working Group 2, Interlaken Workshop for Past Global Changes
N. Rutter (Edmonton, Alta., Canada), B. Ammann (Bern, Switzerland), H. Faure (Marseille, France), B. Huntley (Durham, U.K.), K. Kelts (Bern, Switzerland), W.R. Peltier (Toronto, Ont., Canada), P.A. Pirazzoli (Meudon-Bellevue, France), C. Schlüchter (Zürich, Switzerland), E. Schnack (Mar del Plata, Argentina), L. Starkel (Krakow, Poland), J. Teller (Winnipeg, Man., Canada) and D.H. Yaalon (Jerusalem, Israel) 39

Changes in the global continental reservoir of carbon
H. Faure (Marseille, France) 47
Studying global change: the contribution of Quaternary palynology
B. Huntley (Durham, U.K.) 53
The relevance of soils and paleosols in interpreting past and ongoing climatic changes
D. Yaalon (Jerusalem, Israel) 63
Quaternary sea-level changes
E. Schnack and P. Pirazzoli (Mar del Plata, Argentina) 65
The last glacial cycle—what do we know from continental glacial records?
C. Schlüchter (Zürich, Switzerland) 69
Global continental paleohydrology
L. Starkel (Krakow, Poland) 73
Paleoenvironmental modelling and global change
W.R. Peltier (Toronto, Ont., Canada) 79
Proposed projects—Working Group 2, Interlaken Workshop for Past Global Changes
N. Rutter (Edmonton, Alta., Canada), B. Ammann (Bern, Switzerland), H. Faure (Marseille, France), B. Huntley (Durham, U.K.), K. Kelts (Bern, Switzerland), W.R. Peltier (Toronto, Ont., Canada), P.A. Pirazzoli (Meudon-Bellevue, France), C. Schlüchter (Zürich, Switzerland), E. Schnack (Mar del Plata, Argentina), L. Starkel (Krakow, Poland), J. Teller (Winnipeg, Man., Canada) and D.H. Yaalon (Jerusalem, Israel) 87

III. Anthropogenically induced global change—Report of Working Group 3, IUGS Workshop on Global Change Past and Present
H. ApSimon (London, U.K.), I. Thornton (London, U.K.), W. Fyfe (London, Ont., Canada), Yetang Hong (Guiyang, P.R. China), J. Leggett (London, U.K.), J.O. Nriagu (Burlington, Ont., Canada), A.L. Page (Riverside, CA, U.S.A.), R. Price (Kingston, Canada), B. Skinner (New Haven, CT, U.S.A.), E. Steinnes (Dragvoll, Norway) and Wyss Yim (Hong Kong) 97

Human influence on the global cycling of trace metals
J.O. Nriagu (Burlinton, Ont., Canada) 113
Soil contamination in urban areas
I. Thornton (London, U.K.) 121
Atmospheric deposition as a source of trace elements in soils
A.L. Page (Riverside, CA, U.S.A.) and E. Steinnes (Dragvoll, Norway) 141
Contamination of the global environment as observed in the Arctic
J.M. Pacyna (Lillestrøm, Norway) and J.W. Winchester (Tallahassee, FL, U.S.A.) 149

IV. Biotic systems and diversity—Report of Working Group 4, Interlaken Workshop for Past Global Changes
R.E. Ricklefs (Philadelphia, PA, U.S.A.), E. Buffetaut (Paris, France), A. Hallam (Birmingham, U.K.), K. Hsü (Zürich, Switzerland), D. Jablonski (Chicago, IL, U.S.A.), E.G. Kauffman (Boulder, CO, U.S.A.), S. Legendre (Montpellier, France), P. Martin (Tucson, AZ, U.S.A.), D.J. McLaren (Ottawa, Ont., Canada), N. Myers (Oxford, U.K.) and A. Traverse (University Park, PA, U.S.A.) 159

The relevance of past mass extinctions to an understanding of current and future extinction processes
E. Buffetaut (Paris, France) 169
Mass extinctions: what can the past tell us about the present and the future?
N. Myers (Oxford, U.K.) 175
40,000 years of extinctions on the "planet of doom"
P.S. Martin (Tucson, AZ, U.S.A.) 187
Plant evolution in relation to world crises and the apparent resilience of Kingdom Plantae
A. Traverse (University Park, PA, U.S.A.) 203

Twenty-five Years of Physical Climatology—an introduction to the special issue
J.G. Cogley (Peterborough, Ont., Canada) 213
The genesis of energy balance modeling and the cool sun paradox
W.D. Sellers (Tucson, AZ, U.S.A.) 217
Multiple solutions in energy balance climate models
G.R. North (College Station, TX, U.S.A.) 225
Extending the EBM: the effect of deep ocean temperature on climate with applications to the Cretaceous
R.J. Oglesby and B. Saltzman (New Haven, CT, U.S.A.) 237
Precambrian evolution of the climate system
J.C.G. Walker (Ann Arbor, MI, U.S.A.) 261
The "coming of age" of land surface climatology
A. Henderson-Sellers (North Ryde, N.S.W., Australia) 291
Satellites and our understanding of the surface energy balance
R.T. Pinker (College Park, MD, U.S.A.) 321
The regional hydrologic impacts of global climate change: the role of climate models
G. Thomas (Vancouver, B.C., Canada) 343
Are the trace metal cycles balanced in the Mediterranean Sea?
D.P. Ruiz Pino (Villefranche sur Mer, France), C. Jeandel (Toulouse, France), J.-P. Bethoux (Villefranche sur Mer, France) and J.-F. Minster (Toulouse, France) 369
The recession of the inland ice margin during the Holocene climatic optimum in the Jakobshavn isfjord area of West Greenland
A. Weidick (Copenhagen, Denmark), H. Oerter, N. Reeh (Bremerhaven, F.R.G.), H.H. Thomsen and L. Thorning (Copenhagen, Denmark) 389